### Richland Operations Office Environmental Restoration

## Environmental Management Performance Report

May 2000



Focused on Progress...
Focused on Outcomes!





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### INTRODUCTION

The monthly Environmental Restoration (ER) Environmental Management Performance Report consists of three sections: Section A - Executive Summary, Section B - Restoring the River Corridor Project Summaries, and Section C - Transitioning the Central Plateau Project Summaries.

Section A – Executive Summary. This section provides an executive level summary of Bechtel Hanford, Inc.'s (BHI) performance information for the current reporting month and is intended to bring to Management's attention that information considered to be most noteworthy. The Executive Summary begins with a description of notable accomplishments that are considered to have made the greatest contribution toward safe, timely, and cost-effective cleanup. Major commitments are summarized that encompass Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestones and FY00 Management Commitment milestones. Safety statistics are also included. Issues that require management and/or regulator attention and resolution status are addressed. Fiscal year-to-date ERC Project cost and schedule variance analysis is summarized. The Key Integration Activities section highlights site activities that cross contractor boundaries and demonstrates the shared value of working as a team to accomplish the work. The Executive Summary ends with a listing of major upcoming planned key events within a 90-day period.

**Section B – Restoring the River Corridor.** This section contains more detailed monthly activity information and performance status for the three projects within the 'Restoring the River Corridor' outcome. These three projects consist of the Remedial Action and Waste Disposal Project, Decommissioning Projects, and the Program Management and Support (PM&S) Project.

**Section C – Transitioning the Central Plateau.** This section contains more detailed monthly activity information and performance status for the two projects within the 'Transitioning the Central Plateau' outcome. These two projects consist of the Groundwater/Vadose Zone (GW/VZ) Integration Project and the Surveillance/Maintenance and Transition (SM&T) Projects.

Information in this report is identified with a green, yellow, or red text box used as an indicator of the overall status. Green indicates work or issue resolution is satisfactory and generally meets or exceeds requirements; yellow indicates that significant improvement is required; and red indicates unsatisfactory conditions requiring immediate corrective actions.

## Section A: Executive Summary

**MAY 2000** 

### **SECTION A - EXECUTIVE SUMMARY**

Financial / Performance measures data as of month-end March.
All other data as of April 20, unless otherwise noted.

### NOTABLE ACCOMPLISHMENTS:

Approximately 90% of the underground piping in 100 H Area has been removed. Baseline change proposals (BCP) are being prepared to address additional contaminated plumes being found in both 100 D and H Areas.

The 100 F Area design package was completed in mid-April.

The 100-NR-1 remediation contract was awarded on April 13. Soil remediation is scheduled to begin in July.

RL issued a letter to the regulators on March 29 declaring completion of Tri-Party Agreement Milestone M–16-08B, Complete Remediation and Backfill of 19 Liquid Waste Sites in the 100-BC-1 and 100-BC-2 Operable Units, on February 25, five weeks ahead of the March 31 milestone date. All scheduled work has been completed at the 100 B/C Area. Only pipeline and burial ground remediation remains to be completed.

The D and H Reactor's Engineering Evaluation/Cost Analysis (EE/CA) and the D Reactor Auditable Safety Analysis (ASA) were submitted to RL in March. RL review is in progress.

The F Reactor safe storage enclosure (SSE) pourback subcontractor began mobilization and preparation for the valve pit work.

Four waste minimization targets were completed in conjunction with the waste reduction incentives: 1) redeployment of a concrete crusher to Ohio, 2) recycled excessed absorbents to another Environmental Restoration (ER) project, 3) recycled flatbed trailer and generator, and 4) recycled 1,100 drum overpacks.

All five groundwater pump and treat systems operated at or above the planned 90% availability levels through March.

The FY 2000 In Situ REDOX Manipulation (ISRM) well installations were completed on April 24 in the 100 D Area. Sixteen wells were drilled and installed to planned depth.

The Groundwater/Vadose Zone (GW/VZ) draft Science and Technology Roadmap was submitted to RL on April 14. The revision of the Roadmap includes the risk technical element and provides the basis for FY 2002 workscope.

The peer review of the System Assessment Capability (SAC) Revision 0 Design Document and Detailed Software Design Document were completed.

Removal of legacy waste at the KE Reactor is approximately 90% complete. Legacy waste removal at KW Reactor is approximately 45% complete.

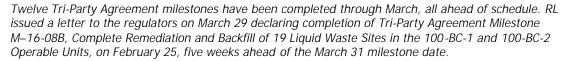
Washington Department of Health approved the final design package for the water treatment plant replacement system at the N Reactor site. The subcontractor continued installation of the new piping system.

Green

**MAY 2000** 

### **MAJOR COMMITMENTS:**

### **Tri-Party Agreement Milestones**



Green
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Total Tri-Party Agreement Milestones Due in FY00					
Total Planned Through March	12				
Total Completed Through March	12				

Remaining Milestones to be Completed in FY00					
Forecast Ahead of Schedule	1				
Forecast On Schedule	3				
Unrecoverable	0				

### High Visibility Project Milestones:

Transmit Update of the Vadose Zone Science and Technology Roadmap (PBS VZ01) due April 30.

Status: Draft was provided to DOE on April 14.

Complete Installation of the Wells and Initiate Injection of the Barrier for Phase II of the In Situ REDOX Manipulation Project (PBS ER08) due September 30.

Status: Forecasted to be complete by September 30. (Well installation completed on April 24.)

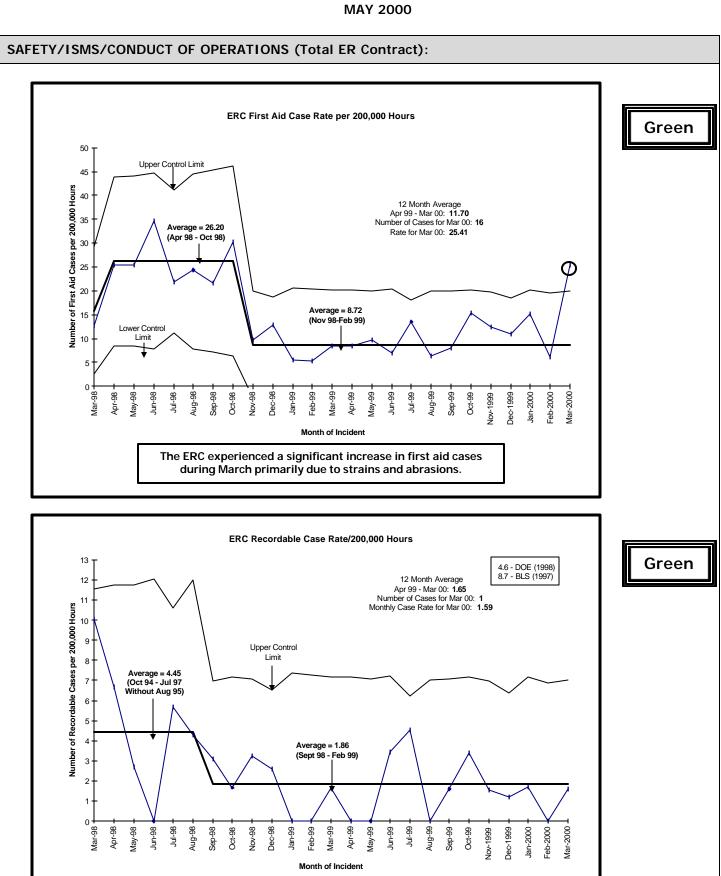
Complete the Semi-Annual Groundwater/Vadose Zone Report (December 1999 - March 2000) due May 31.

Status: Forecasted to be completed by May 31.

### Other Major Milestones:

Develop and Implement Integrated Safety Management (ISM) due September 30.

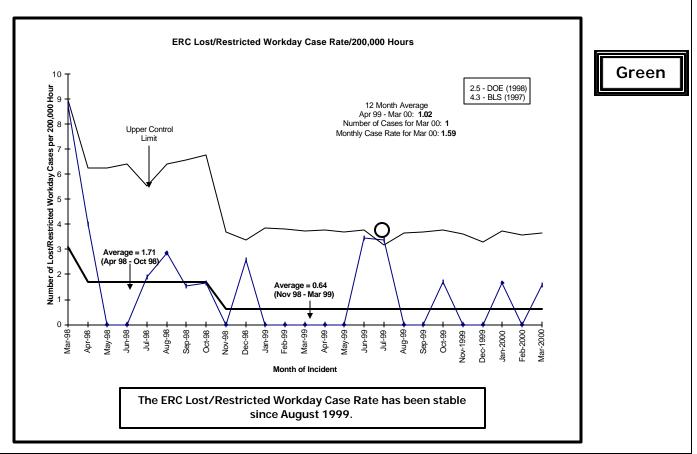
Status: On schedule.



The ERC Recordable Case Rate has been below the-baseline average for five consecutive months.

**MAY 2000** 

### SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract) continued:



### Safety:

	YTD	Current Month (Mar)	Current Month Comments
First Aid	55	16	(4) abrasions, (6) strains, (1) irritation, (2) punctures, (2) bites/stings, (1) laceration
Restricted Work Case	2	1	(1) fracture/laceration of finger*
Lost Work Day Case	1	0	n/a
OSHA Recordable	6	1	(1) fracture/laceration of finger (*same incident as above)

Green

-As of 4/15/00, the ERC has worked approximately 825,300 hours since last lost workday case. (These hours have been updated to include more accurate NTR, ROS and Kelly hours.)

<sup>-</sup>BHI/ERC Project Management is addressing current month increase in first aid cases through additional awareness discussions at Plan of the Day meetings.

**MAY 2000** 

### SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract) continued:

#### ISMS:

**DOE EM Performance Agreement:** Develop and implement Integrated Safety Management (ISM) – September 30.

Green

**Status:** On March 23, the DOE ISMS Verification Team Leads met with BHI Senior Management to debrief them on the results of the verification. They also met with DOE-RL Senior Management later that day and made a presentation to them on their conclusions as to the status of ISMS Implementation at BHI.

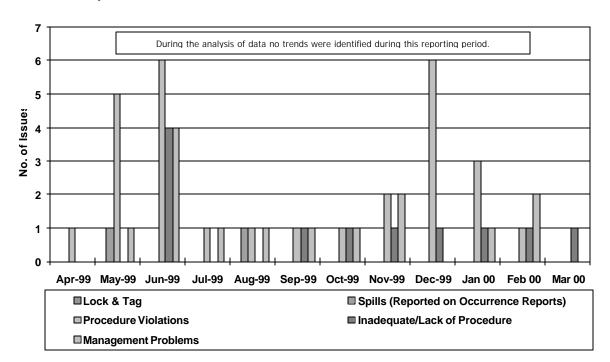
The Verification Team recommended that Keith Klein approve the BHI ISM Description Document (BHI-01199) after incorporation of the following:

- Descriptions of the Detailed Work Planning, Results Management Team, and Baseline Change Proposal budgeting and business planning processes;
- measures to monitor and evaluate system effectiveness; and
- discussion of line management roles and responsibilities in a project matrix organization.

The Verification Team also recommended that Keith Klein consider the ERC ISMS to be adequately implemented. The team identified five opportunities for improvement that serve as a focal area to further strengthen and continuously improve the ERC ISMS implementation.

The Verification Team also identified several "Noteworthy Practices" which they cited as evidence of a commitment to ISMS that should be reinforced and continued.

### Conduct of Ops:



### ERC-CATS (Computer-Aided Tracking System) Trend Data 4/1/99 through 3/31/00

	Apr-99	May-99	Jun-99	Jul-99	Aug-99	Sep-99	Oct-99	Nov-99	Dec-99	Jan 00	Feb 00	Mar 00
Lock & Tag	0	0	0	0	0	0	0	0	0	0	0	0
Spills (Reported on Occurrence Reports)	0	1	0	0	1	0	0	0	0	0	0	0
Procedure Violations	1	5	6	1	1	1	1	2	6	3	1	0
Inadequate/Lack of Procedure	0	0	4	0	0	1	1	1	1	1	1	1
Management Problems	0	1	4	1	1	1	1	2	0	1	2	0

Each potential trend is reviewed and evaluated for impact on the project, and then given the appropriate level of attention based on a graded approach.

**MAY 2000** 

### SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract) continued:

### March Conduct of Ops Issues:

#### Inadequate/Lack of Procedure:

**Condition Description:** The Craft Supervisor was observing pipe removal activities in the 233-S Plutonium Concentration Facility Viewing Room. This is a posted High Contamination Area (HCA) and everyone in the room was wearing a double layer of anti-contamination clothing. The Craft Supervisor was also wearing an extra set of puncture resistant gloves. While applying duct tape over the end of a recently cut pipe, the Craft Supervisor's right hand contacted a sharp piece of metal on the pipe which punctured his gloves and resulted in a small cut to the palm of his hand.

**Corrective Action Plan:** (1) Revise the Activity Hazard Analysis (AHA) to impose additional engineered controls. Use padded silver metallic tape to cover sharp surfaces instead of duct tape. Purchase and use plastic pipe caps where size and configuration permits. (2) Revise the AHA to impose an additional administrative control that personnel performing work involving sharp objects, that cannot be restrained, will work in teams of two. One person will hold the object while the other applies tape to the sharp surface. This will allow taping without physically contacting sharp surfaces. (3) Revise the AHA to impose an additional administrative control for the personnel performing work involving sharp objects that restricts the use of thin (5-8mil) blue nitrile gloves and specifies glove combinations for direct cutting inside a radiological containment. (4) Investigate other gloves looking for combinations that provide improved puncture resistance while permitting worker dexterity and tool control. (5) As recommended by the workers, re-emphasize with the Field Superintendent and Craft Supervisor the requirement to hold a Plan of the Day Presentation, per BHI-FS-01, Field Support Administration, Procedure 1.10, Shift Turnover, Section 5.2.5 prior to the afternoon entry to discuss work performed and problems encountered during the morning. (6) Brief the entire 223-S permanently assigned project team on the details of this occurrence and the planned corrective actions. (7) Develop a lessons learned on this event and provide it to the ERC Lessons Learned Coordinator for appropriate circulation.

Green

### REGULATORY/EXTERNAL/DOE-RL & HQ ISSUES AND REQUESTS:

**Site Wide Seniority (SWS):** Current BHI/THI manual staffing totals 268 personnel. Approximately 225 position openings will become available within the Fluor Hanford organization during FY 2000. Currently, 53 BHI/THI personnel have applied for transfer through the LAMP (Labor Assets Management Program) Process. Continued loss of personnel will result in additional costs and potential impacts to critical work path activities.

Green

**Status:** Lamping of ERC personnel has begun. For the months of January through March, 23 personnel have transferred to Fluor Hanford. A site-wide strategy is required to maintain trained and critical resources on ER work. Lamping of personnel has resulted in additional costs associated with the training of new personnel without compensation from the receiving organization.

**Funding:** FY 2001 and FY 2002 ER funding (target) levels are below minimum compliance requirements. Submitted FY 2001 President's budget assumes ER funding target at \$143M (revised IPL now reflects \$141.9M). While this funding level maintains a number of significant activities supporting site cleanup goals, it is far short of maintaining compliance with TPA/other Regulatory commitments for the near term and especially beyond FY 2001. The recently submitted budget reflects a funding target for FY 2002 of \$140.8M, which is again significantly short of supporting minimum compliance requirements and for FY 2002 and beyond.



Activities, not funded, that need to be addressed in FY 2001 and FY 2002 include:

- 200 Area Characterization
- Reactor ISS

**Status:** Maintain current TPA/Regulatory commitments in FY 2000; develop impacts associated with directed funding targets for FY 2001 and FY 2002, and support DOE budget submittals and presentations, including discussions with Regulators on projected future shortfalls and prioritization of allocated funding, including adjustments to support the Detailed Work Planning update (DWP) beginning in June.

**MAY 2000** 

DECLII	ATABY /EVTERNIAL	VDAE DI		ICCLIEC AND	REQUESTS continued:
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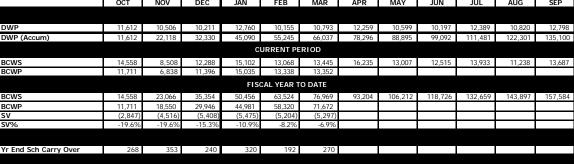
**Emerging Work:** Emergence of priority work is impacting the ERC's ability to initiate stretch and superstretch work activities.



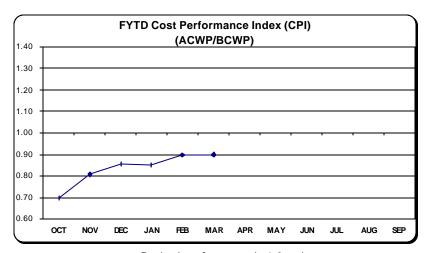
**Status:** The "emerging work" issue was one of three issues included in the letter, M. C. Hughes to K. A. Klein, 4/03/00, "Bechtel Hanford, Inc. Performance Incentive Impacts", CCN 078071. The other issues identified in that letter were (1) unclear RL organization, roles and responsibilities for administration of BHI's PI administration and (2) methodology for implementing superstretch PI not being fully defined. To date, no response has been received from DOE Management.

**MAY 2000** 

### TOTAL COST/SCHEDULE OVERVIEW (Total ER Contract): FYTD Schedule Variance Percentage (SV%) ((BCWP-BCWS)/BCWS) Green 10.0 % 5.0 % 0.0 % (5.0)% (10.0)% (15.0)% (20.0)% (25.0)% OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP JUL DWP (Accum) CURRENT PERIOD



For variance explanation by PBS see Project Status Section of each project.



Desired performance is 1.0 or less.

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Carry Over
CURRENT PERIOD													
ACWP	8,190	6,786	10,729	12,465	14,171	12,199							
BCWP	11,711	6,838	11,396	15,035	13,338	13,352							
					FISCAL	YEAR TO D	ATE						
ACWP	8,190	14,976	25,705	38,170	52,341	64,540							
BCWP	11,711	18,550	29,946	44,981	58,320	71,672							
CV	3,521	3,574	4,240	6,811	5,978	7,131							
CPI	0.70	0.81	0.86	0.85	0.90	0.90							
EAC (Cumulative)	8,190	14,976	25,705	38,170	52,341	64,540	82,550	96,917	110,358	124,897	137,012	151,832	152,102
Yr End Budget Variance	1,967	3,638	4,793	5,074	5,521	5,482							270

For variance explanation by PBS see Project Status Section of each project.

Green

**MAY 2000** 

### TOTAL COST/SCHEDULE OVERVIEW (Total ER Contract) continued:

### FY2000 PERFORMANCE FYTD MARCH '00 (\$K)

Green

						Υ	то		YTD		
	DWP	CURRENT		FYTD		SCHEDUL	E VARIANCE	COST	VARIANC	E	FY00
	BCWS	BCWS	BCWS	BCWP	ACWP	\$	%	\$	%	*CPI	EAC
ER01 100 Area R/A	27,364	29,991	14,338	14,379	11,697	41	0.3%	2,682	18.7%	0.81	27,925
ER03 300 Area R/A	3,157	6,982	4,118	4,353	2,678	235	5.7%	1,675	38.5%	0.62	5,608
ER04 ER Waste Disposal	16,146	20,396	10,622	10,609	9,198	-13	-0.1%	1,411	13.3%	0.87	19,343
RA-Subtotal	46,667	57,369	29,078	29,341	23,573	263	0.9%	5,768	19.7%	0.80	52,876
		•			1	,		1			
ER02 200 Area R/A	3,534	3,669	2,823	2,643	1,942	-180	-6.4%	701	26.5%	0.73	2,903
ER08 GW Management	19,394	22,316	12,035	10,281	9,835	-1,754	-14.6%	446	4.3%	0.96	22,457
VZ01 GW/VZ	11,325	11,437	5,404	4,470	4,269	-934	-17.3%	201	4.5%	0.96	11,345
GW/VZ-Subtotal	34,253	37,422	20,262	17,394	16,046	-2,868	-14.2%	1,348	7.7%	0.92	36,705
ER06 D&D	8,446	16,113	7,911	7,252	6,903	-659	-8.3%	349	4.8%	0.95	15,745
DD-Subtotal	8,446	16,113	7,911	7,252	6,903	-659	-8.3%	349	4.8%	0.95	15,745
EDOE COM	40.004	40.040	0.440	5.004	0.000	500	7.00/	000	0.40/	4.00	40.004
ER05 S&M	12,291	13,610	6,410	5,904	6,266	-506	-7.9%	-362	-6.1%	1.06	13,684
ER07 Long-Term S&M	47	47	4	6	10	2	50.0%	-4	-66.7%	1.67	47
SM-Subtotal	12,338	13,657	6,414	5,910	6,276	-504	-7.9%	-366	-6.2%	1.06	13,731
ER10 ERC PM&S	27,597	25,395	9,568	9,511	9,478	-57	-0.6%	33	0.3%	1.00	25,417
ER10 RL PM&S	5,800	7,628	3,736	2,264	2,264	-1,472	-39.4%	0	0.0%	1.00	7,628
PM-Subtotal	33,397	33,023	13,304	11,775	11,742	-1,529		33	0.3%	1.00	33,045
GRAND TOTAL	135,101	157,584	76,969	71,672	64,540	-5,297	-6.9%	7,131	10.0%	0.90	152,102

<sup>\*</sup>CPI = ACWP/BCWP

### Cost/Schedule Status:

**Cost Variance:** At the end of March, the ER Project had performed \$71.7M worth of work, at a cost of \$64.5M. This accounts for a favorable cost variance of \$7.1M (10%). The positive cost variance is attributed to site excavation savings reduced contract award amounts, borehole drilling and test pit trenching costs less than planned (due to efficiencies), and FY 1999 year-end accrual reversals.

**Schedule Variance:** The ER Project is \$5.3M (-6.9%) behind schedule for March. The negative schedule variance is attributed to delayed Integration Project science and technology (S&T) activities; undetermined Integration Project subpanel schedules; delayed groundwater well maintenance (resin regeneration/purchase) and monitoring; 233-S Facility loadout hood waste removal (awaiting waste container procurement), and roof duct removal, sampling, and analysis; 224B Facility inspection/survey delayed due to inoperable exhaust system repairs; and late billings for sitewide assessments.

### PERFORMANCE OBJECTIVES:

**River Corridor Initiative** (Complete remediation of 60 sq. miles, including Hanford townsite): Initiative is currently identified as a superstretch item, with an approximate value of \$5.0M. **High visibility public** access opportunities; also a superstretch item (bike trail, road to B Reactor, and boat ramp at Hanford townsite). Feasibility plan completed and is in review.

Green

**Status:** Preparing presentation of results for AMEW review targeted for mid-March.

**MAY 2000** 

<b>KEY INTEGRATION ACTIVITIES:</b>	
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BHI supported Fluor Hanford in the development of a Baseline Change Request (BCR) to prepare an accelerated closure plan for the 300 Area. Walkdowns have been initiated. The project team is continuing

to develop cost and schedule information in support of the BCR development. Modeling activities are scheduled to begin the first week of May.						
UPCOMING PLANNED KEY EVENTS:						
Tri-Party Agreement Milestone M-93-05, Issue B Reactor Phase II Feasibility Study Engineering Design Report for Public Comment, due June 30.						

### Richland Operations Office Environmental Restoration

## Environmental Management Performance Report

Section B - River Corridor Information

May 2000



Focused on Progress...
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# Remedial Action and Waste Disposal Project (RAWD)

**MAY 2000** 

### SECTION B - RESTORING THE RIVER CORRIDOR

Financial / Performance Measures data as of month-end March.
All other data as of April 20, unless otherwise noted.

### Remedial Action & Waste Disposal Project (RAWD):

#### **ACCOMPLISHMENTS: RAWD**

**ERDF Transportation and Operations:** During March, shipments totaling 62,880 metric tons (69,314 tons) of contaminated waste were transported to the ERDF. 308,022 metric tons (339,538 tons) have been received in FY 2000. To date, 2,034,998 metric tons (2,243,213 tons) of material have been received and placed in the disposal facility. To date, waste transport has drivers driven over 3,780,000 accident free miles.

In preparation for receiving N-Cribs and K-Basins waste, the ERDF safety analysis is being revised to incorporate radionuclides that are unique to these two waste streams.

The ERDF completed its second leachate pumping campaign on March 28. In this transfer, a total of 117,000 gallons was pumped to the Liquid Processing Facility in the 200 East Area.

The RAWD is upgrading its overall waste packaging quality and safety effort. This includes container maintenance, tarp and bungee inspection and replacement, and proper preparation of containers for shipping. Substantial progress is being made in all areas.

**100 D Area Remedial Action:** Excavation of one waste site 100-D-52 was completed and backfill of six Group 2 high priority waste sites was completed.

Pipeline remediation work included: asbestos abatement; removal of small diameter pipes near D Reactor; concrete breaking on encasements, expansion boxes, and pipe anchors; and pipe cutting and size reduction for shipment to ERDF.

Stockpiled material from the 100-D-12 waste site was identified as having chromium contamination and was shipped to ERDF. Also, plumes have been identified and a BCP for removing the additional material is in process.

Excavation of plumes from three D Area waste sites were completed. The pipeline plume west of the basin has grown considerably and a separate BCP is being prepared for the excavation activities and to relocate an existing power pole and install one additional power pole.

100 B/C Remedial Action: Complete.

**100** H Area Remedial Action: Approximately 90% of the baseline scope underground piping in the 100-H Operable Unit has been removed. A BCP is in process to remove an additional 8,750 tons of contaminated soil (second plume encountered on the pipeline removal work scope).

The baseline scope of the 116-H-7 Retention Basin excavation was completed. A BCP is in process to remove 48,720 tons of additional plume material. Demolition of the concrete structures (approved BCP) encountered at the 100-H-24 Substation was completed.

Verification sample results received for the 1607-H-4 Septic Tank indicate Semi-volatile compounds (SVOCs) results that exceed the Remedial Action Goals (RAGs). A BCP is in process to remove an additional 1,250 tons of material.

Lead contamination was detected in verification samples collected from one of the H Area septic tanks. The project plans to perform additional lead analysis to ensure that lead concentrations detected in the excavation sidewalls and floor do not extend to the groundwater.

100 F Area Remedial Action: The 100 F Operable Unit design package was completed in mid-April.

Cultural Resource investigations at the 100 F Area Operable Unit were completed.

Green

**MAY 2000** 

### **ACCOMPLISHMENTS continued: RAWD**

**300 Area Remedial Action:** Drums continue to be exhumed from Landfill 1A. Most of the drums are empty and are crushed and sent to ERDF.

Additional contamination has been found in the South Process Pond. What was thought to be an increase of 5,000 tons is now estimated to be at 24,925 US tons. The increase is associated with contaminated soil discovered in the interior of the southeast dike that was assumed to be non-contaminated. Test pits were dug to define the extent of this latest plume.

Contamination in the south dike of the South Process Pond extends into the area surrounding an existing power pole to minimize power disruption. A plan has been developed to hold the pole in place with a boom truck while incrementally excavating and backfilling around the base of the pole. Field screening will be used to confirm cleanup criteria are met before each portion of backfill is placed and compacted. This plan has been reviewed with EPA. The overhead power lines will be temporarily taken out of service during these remediation activities.

Green

**100-NR-1 Remediation:** Soil remediation at 100 N is scheduled to begin in July to meet the requirements of the Hanford Site RCRA permit. The contract was awarded on April 13 to Foster Wheeler.

**100-NR-1 TSD Sites Design:** Regulator comments were received on the draft Sampling and Analysis Plan for NR-1 TSD sites. Work on the Remedial Design Report/Remedial Action Workplan continues.

**100 Area Assessment:** Comments on Rev. B of the Proposed Plan were received from DOE-HQ and EPA Region 10. Fact sheet preparation is underway in support of Public Comment Period scheduled for May.

### SAFETY/ISMS/CONDUCT OF OPS: RAWD

See Cross-Cutting Package.

#### BREAKTHROUGHS/OPPORTUNITIES FOR IMPROVEMENT: RAWD

**Waste Minimization 126-F-1 Ash Pit:** The project deployed two off-the-shelf technologies (geo-probe and sodium iodide detector) to perform in-situ characterization that resulted in 50% reduction in waste site volume. Preliminary cost savings is estimated at \$5M.

Green

**Status:** The final report on the 126-F-1 Ash Pit was provided to the Return-on-investment (ROI) Program mid-April. Planning is underway to develop a sampling and analysis approach to support close-out verification sampling for the south portion of the 126-F-1 Ash Pit.

### LONG-TERM (6 MONTHS PLUS) IMPORTANT ITEMS: RAWD

**300-FF-2:** Work is ongoing to prepare decision documents for the public review period scheduled for late May. Ecology has issues with the Preliminary Remediation Goals (PRG's) being developed for 300-FF-2. EPA, who supports the PRG's, will be addressing issues with Ecology with support from RL.

Green

**Status:** The Draft B Focused Feasibility Study and Proposed Plan for the 300 FF-2 Operable was transmitted for review on April 21. Comments are expected back by mid-May. Issues related to Preliminary Remediation Goals should be addressed by this time.

100 Area Burial Grounds: Approval of the ROD is planned by August 30.

Green

Status: Currently tracking on schedule; no issues.

### MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS): RAWD

DOE Secretarial:

None identified at this time.

• DOE EM Performance Agreement:

None identified at this time.

**MAY 2000** 

### MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS) continued: RAWD

### TPA Milestones:

Milestone	Description	Due Date	(F)/(A) Date	
M-15-23B	Submit 300-FF-2 Focus Feasibility Study (FFS) and Proposed Plan (PP) for Regulator Review	11/30/99	11/22/99 (A)	
M-15-00B	Complete all 300 Area Operable Unit Pre-ROD Site Investigations under Approved Work Plan Schedules	12/31/99	11/22/99 (A)	
M-16-92B	ERDF Cells 3 & 4 Ready to Accept Remediation Waste	12/31/99	12/09/99 (A)	
M-15-00A	Complete all Remaining 100 Area Operable Unit Pre- ROD Site Investigations under Approved Work Plan Schedules (100-KR-2, 100-KR-3, 100-FR-2, 100-IU-2, and 100-IU-6)	12/31/99	12/21/99 (A)	Green
M-16-08B	Complete Remediation and Backfill of 22 Waste Sites in the 100-BC-1 and 100-BC-2 Operable Units as Defined in the Remedial Design Report/Remedial Action Work Plan for the 100 Area	3/31/00	3/24/00 (F)	
M-16-13A	Initiate Remedial Action for 100-FR-1 Operable Unit	9/29/00	6/01/00 (F)	-
M-16-03E	Complete Remediation of the Waste Sites in the 300-FF-1 Operable Unit (excluding the 618-A Burial Ground), to Include Excavation, Verification, and Backfilling	12/31/00	12/31/00 (F)	
**M-16-26B	Complete Remediation, Backfill and Revegetation of 51 Liquid Waste Sites and Process Effluent Pipelines in the 100-BC-1, 100-BC-2, 100-DR-1, 100-DR-2, and 100-HR-1 Operable Units as defined in the Remedial Design Report/Remedial Action Work Plan for the 100 Area (DOE/RL-96-17)	2/28/01	2/28/03 (F)	Yellow

<sup>\*\*</sup>Unrecoverable due to funding constraints. RL needs to negotiate resolution with the regulators. The path forward is to submit a TPA change package and evaluate out -year budgets and priorities.

### DNFSB Commitment:

None identified at this time.

### PERFORMA NCE OBJECTIVES: RAWD

Outcome	Performance Indicator	Status		
Restore the River Corridor for Multiple Uses	100/300 Area waste excavation, disposal and backfill/regrade.	Baseline work is projected to be completed per PI requirements.		

Green

**MAY 2000** 

**PEFORMANCE MEASURES:** RAWD – (River and Plateau)

	DWP FY00	FY00 Mgmt Commitments	Current Baseline (Incl. Baseline Changes)	Forecast For FY00	Completed YTD	
Waste Sites	24	41	40	40	10	
100 Area Burial Ground Assessments	0	47	47	47	47 <sup>a</sup>	
300-FF-2 Assessments	119	118	119	119	119 <sup>a,b</sup>	
Other Assessments	2	2	2	2	0 <sup>b</sup>	
Tons	389K	n/a	624K	624K	340K	

Green

### STRETCH AND SUPERSTRETCH GOALS: RAWD

FY00 "Stretch" Goals	Scope Dollars (K)	Approved BCPs (K)			
Perform Excavation in Unfunded Sites in 100 B/C, HR-1, FR-1, 100, and 300 Area and Plumes:					
(1) Extended Plumes at 316-1 S. Pond (BCP-20043)		\$1,202.8K			
(2) Additional Plumes at 100-DR (BCP-20050)		\$905.8K			
(3) Additional Plumes at 100-HR (BCP-20119)		\$240.3K	>	Gı	ree
(4) Additional Plumes at 100-HR (BCP-20130)		\$426.7K			
(5) Additional Plumes at 300-FF (BCP-20113)		\$669.4K			
(6) Additional Plumes at 100-DR (BCP-20116)		\$175.2K			
(7) Defer Backfill at 100-DR (BCP-20166)		(\$93.2K)			
S/Total Remediation Action Stretch Goals:	\$4,560.0K	\$3,445.0K			

<sup>&</sup>lt;sup>a</sup> Proposed Plan, Draft A submittal <sup>b</sup> In January, two waste site assessments were incorrectly reported as completed. This reduces the completed count from 121 to 119.

**MAY 2000** 

### STRETCH AND SUPERSTRETCH GOALS continued: RAWD

FY00 "Superstretch" Goals	Scope Dollars (K)	Approved BCPs (K)	
Complete Remediation of 60 Sq. Mi. of Hanford Site:			
(1) Complete Remediation of Hanford Townsite	\$755.0K	\$0.0K	
(2) Complete Remediation of JA Jones Pit #1 and 600-23 (300-FF-2)	\$1,500.0K	\$0.0K	Green
(3) Other Remedial Actions	\$1,395.0K	\$0.0K	
S/Total Remediation Action Super Stretch Goals:	\$3,650.0K	\$0.0K	
Status: Plan and estimate developed, current work efforts focusing	on stretch activitie	es at this time.	

### PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE: RAWD

#### Schedule:

Domadial Action & Wests Disposal Draiget	BCWS	BCWP	Variance	
Remedial Action & Waste Disposal Project	\$K	\$K	\$K	
ER01 100 Area Remedial Actions	14,338	14,379	41	
ER03 300 Area Remedial Actions	4,118	4,353	235	
ER04 ER Waste Disposal	10,622	10,609	-13	
TOTAL Remedial Actions	29,078	29,341	263	

Green

### PBS-ER-01 - 100 Area Remedial Action

Schedule Variance = [+\$41K; +0.3%] [Last Month: (+\$60K); (+0.5%)]

**Cause:** Ahead of schedule on NR-1 crib remediation site prep; offset by delays at FR from plume growth and at HR due to arsenic contamination in the soil.

**Resolution:** FR plumes will require a Baseline Change Proposal; ER is working with the regulators to resolve arsenic cleanup standard.

### PBS-ER-03 - 300 Area Remedial Action

Schedule Variance = [+\$235K); (+5.7%)] [Last Month: (-\$217K); (-6.4%)]

Cause: Excavation of landfill 1B is ahead of schedule; expect early completion.

**Resolution:** None required; will complete ahead of schedule based on tonnage quantities.

### PBS-ER-04 - Environmental Restoration Waste Disposal

Schedule Variance = [(-\$13K); (-0.1%)] [Last Month: (-\$48K); (-0.5%)]

Cause: On schedule.

**Resolution**: None required.

**MAY 2000** 

### PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE continued: RAWD

#### Cost:

Demodial Action & Waste Disposal Project	BCWP	ACWP	Variance
Remedial Action & Waste Disposal Project	*K 14,379	\$K	\$K
ER01 100 Area Remedial Actions	14,379	11,697	2,682
ER03 300 Area Remedial Actions	4,353	2,678	1,675
ER04 ER Waste Disposal	10,609	9,198	1,411
TOTAL Remedial Actions	29,341	23,573	5,768



#### PBS-ER-01 - 100 Area Remedial Action

Cost Variance = [+\$2682K; +18.7%] [Last Month: +\$2165K; +18.2%]

**Cause:** DR contract award on small sites excavation was less than budgeted; FR savings in site prep and staff reductions; labor savings on B/C backfill activities.

**Resolution:** Savings will be used to perform other remediation work.

#### PBS-ER-03 - 300 Area Remedial Action

Cost Variance = [+\$1675K; +38.5%] [Last Month: +\$1019K; +32.2%]

Cause: Management and administrative cost efficiencies at Landfills 1A/1B, and \$500K under accrual in South Process Pond remediation.

**Resolution:** Savings will be used to perform other remediation work.

### PBS-ER-04 - Environmental Restoration Waste Disposal

Cost Variance = [+\$1411K; +13.3%] [Last Month: +\$1275K; +14.6%]

Cause: Reflects FY 1999 over accrual.

**Resolution:** Savings will be used to perform other remediation work.

### **REGULATORY ISSUES: RAWD**

**Tri-Party Agreement Milestone:** (1) Milestone M-16-26B due February 28, 2001. Complete remediation and backfill of 51 liquid waste sites at B/C, DR and HR is impacted by B/C pipelines.



**Status:** A resolution with the regulators is required to be negotiated. The path forward is to submit a Tri-Party Agreement Change Package to the regulators for review and evaluate out year funding and priorities.



Arsenic Strategy for 100 Area Remediation: Variance sampling was completed in November 1999 for 1607-H2 and 1607-H4 septic systems. Arsenic data in the overburden and shallow zone soils exceeded Remedial Action Goals (RAGs), (Hanford Background). The average ranged from 8-11 mg/kg, maximum – 30 mg/kg; Hanford Background 6.5 mg/kg. Records indicate that no arsenic was used in processes at the 100 H Area Historical research indicates lead arsenate was used as a pesticide in pre-Hanford agricultural lands (predominantly orchards). Application rates were as high as 250 lb. per acres per year. Lead arsenate pesticide was used from the early 1900's to 1942. By 1942, Hanford agricultural land is estimated at 13,000 acres dry land farming and 18,000 acres in irrigation districts.

**MAY 2000** 

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**Status:** The plan to address the elevated arsenic levels encountered during the confirmation sampling activities was pulled back by the Washington State Department of Ecology during the March Unit Managers Meeting. This delay may cause the recently negotiated completion date for Tri-Party Agreement Milestone M-16-26C, Complete Remediation and Backfill of 10 Liquid Waste Sites in the 100 H Operable Unit by May 31, 2001 to slip. The initial indication is that Ecology will want to obtain additional arsenic samples throughout the 100 Areas of the Hanford site prior to resolving the issue. It may cause up-to a three-month delay in confirmation sampling and verification package activities for the 100 H Operable Unit remediation activities.

Discussion of the issue with Washington State Department of Ecology and the U.S. Environmental Protection Agency is planned during the May 2000 brown bag meeting. If no progress is made during the brown bag meeting, a letter will be issued requesting resolution of the Pre-Hanford Arsenic Issue from the Washington State Department of Ecology and the U.S. Environmental Protection Agency.

<b>EXTERNAL ISSUES</b>	(i.e. HAB,	Congress,	etc.):	RAWD
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None identified at this time.

### DOE-RL & HQ ISSUES/REQUESTS (not covered elsewhere): RAWD

None identified at this time.

### **INTEGRATION ACTIVITIES: RAWD**

None identified at this time.

## Decommissioning Projects (D&D)

**MAY 2000** 

### SECTION B - RESTORING THE RIVER CORRIDOR

Financial / Performance Measures data as of month-end March.
All other data as of April 20, unless otherwise noted.

### **Decommissioning Projects (D&D):**

#### **ACCOMPLISHMENTS: D&D**

233-S: Completed viewing room airline piping removal.

Completed L-18 cubicle rad survey.

Removed three 3<sup>rd</sup> floor process hood front face PMMA panels (non-TRU by NDA).

Removed four large supply duct sections from the 233-S building roof.

Initiated cutting process hood stairwell supply duct.

**224B:** Completed initial radiological survey and walkdown at 224B offices and storage areas.

Drafted memorandum of agreement to allow access for engineering planning and DQO development.

**ISS:** The 105-D & H Reactor Engineering Evaluation/Cost Analysis (EE/CA) and the 105-D Auditable Safety Analysis (ASA) drafts were submitted to DOE-RL in March. (Completes PI #3A & partial completion of 4A.) RL evaluation is in progress.

Began demolition of the North Reactor Slabs and tunnel at 105-DR Reactor in mid-March.

Completed demolition preparation activities at 105-DR Gas Recirculation tunnel and South Sample Rooms.

F Reactor SSE pourback subcontractor began mobilization and preparation on work for the pourbacks in the valve pit at F Reactor.

**105-B Safe Storage:** The draft B Reactor Safe Storage Phase II Feasibility Study is 30% complete. The project team reviewed the document and provided comments to the subcontractor.

Digital recording of artifact collection being conducted by Columbia River Exhibition of History, Science, and Technology (CREHST).

U.S. Corps of Engineers evaluation of B Reactor for suitability as a long-term repository for artifacts and records.

### SAFETY/ISMS/CONDUCT OF OPS: D&D

See Cross-Cutting Package.

### **BREAKTHROUGHS/OPPORTUNITIES FOR IMPROVEMENT:** D&D

None identified at this time.

### LONG-TERM (6 MONTHS PLUS) IMPORTANT ITEMS: D&D

None identified at this time.

### MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS): D&D

### • DOE Secretarial:

None identified at this time.

Green

**MAY 2000** 

### MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS) continued: D&D

• DOE EM Performance Agreement:

**224-B:** Complete <u>draft</u> EECA and submit to regulators – July 2000.

Complete <u>draft</u> SAP and submit to regulators – September 2000.

Yellow

• TPA Milestones:

Milestone	Description	Due Date	(F)/(A) Date
M-93-05	Issue B Reactor Phase II Feasibility Study Engineering Design Report for Public Comment	6/30/00	6/30/00 (F)

Green

DNFSB Commitment:

None identified at this time.

### PERFORMANCE OBJECTIVES: D&D

Outcome	Performance Indicator	Status	
Restore the River Corridor for Multiple Uses	Reactor ISS and preparation of facilities for decommissioning.	Baseline reactor ISS work is projected to be completed per PI requirements.	
	Maintain facilities until D&D (233-S).	FY 2000 work resequenced via BCP-20141, approved March 14, 2000. New performance indicators drafted and submitted for approval.	Green
Transition Central Plateau to Support Long-Term Waste Management	Maintain facilities until D&D (224-B).	224B baseline work impacted by inoperable B-Plant exhaust system and regulator refusal to review EE/CA. Project has changed the approach to conduct walkdowns in support of the DQO without ventilation. The SAP can be completed before the end of the fiscal year if regulator support is reestablished. If not, this performance measure will require revision.	Yellow

### **PERFORMANCE MEASURES:** D&D

	DWP FY00	Current Baseline (Incl. Baseline Changes)	Forecast For FY00	Completed YTD
Facilities	0	4 <sup>c</sup>	4 <sup>c</sup>	3 <sup>d</sup>

Green

<sup>&</sup>lt;sup>c</sup> 116-D, 116-DR, 119-DR and 108-F

<sup>&</sup>lt;sup>d</sup> 116-D, 116-DR, 119-DR (108-F Final Report scheduled for 9/00.)

**MAY 2000** 

### STRETCH AND SUPERSTRETCH GOALS: D&D

FY00 "Superstretch" Goals	Scope Dollars (K)	Approved BCPs (K)
*Continue F Reactor Interim Safe Storage (ISS) (BCP-20151)	\$2,000.0K	\$1490.8K
Public Access to Hanford Townsite and B Reactor	\$750.0K	\$0.0K
S/Total D&D Super Stretch Goals:	\$2750.0K	\$1490.8K





### PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE): D&D

### Schedule:

Decemmissioning Projects	BCWS	BCWP	Variance	
Decommissioning Projects	\$K	\$K	\$K	
ER06 Decontamination & Decommissioning	7,911	7,252	-659	
Total D&D	7,911	7,252	-659	



### PBS-ER-06 - Decontamination and Decommissioning

Schedule Variance = [(-\$659K); (-8.3%)] [Last Month: (-\$528K); (-8.2%)]

**Cause:** 233-S decommissioning delay in removal of roof duct and decon due to replacement of deteriorated glove bag; late receipt of waste containers and CAM equipment at 233-S.

**Resolution:** Duct removal started in late February and completed in mid-March – will correct variance; procurement will increase in next few months and place purchases back on schedule.

Cause: 224B entry was restricted due to inoperable B-Plant exhaust system.

**Resolution:** Initiated planning for walkdowns without facility ventilation.

### Cost:

Decommissioning Projects	BCWP	ACWP	Variance
Decommissioning Projects	\$K	\$K	\$K
ER06 Decontamination & Decommissioning	7,252	6,903	349
TOTAL D&D	7,252	6,903	349



### PBS-ER-06 - Decontamination and Decommissioning

Cost Variance = [+\$349K; +4.8%] [Last Month: +\$272K; +4.6%]

Cause: Sample analysis cost is significantly lower than expected.

**Resolution:** Savings will be used to perform other remediation work.

Cause: 233-S – Additional cost to correct air flow and installing electrical upgrades in the viewing room; unexpected difficulties resulted in extra cost to remove glovebag from the Loadout Hood area.

**Resolution:** Cost overruns are being trended. Engineering controls have been implemented to resume characterization activities.

<sup>\*</sup>Status: Requires funding support outside of ER to execute Superstretch.

**MAY 2000** 

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**D&H Reactor Impacts of TPA milestones:** The acceleration of the Reactor ISS has gotten out of sync with the current M-93 milestones, especially the competitive procurement and renegotiating milestones for DR, D, and H at the same level of detail as F and C reactors.

Green

**Status:** The new Ecology lead for D&D was briefed on that status of D&D by the DOE and BHI PMs. The issues that have been raised by EPA concerning the TPA milestones was discussed and Ecology agreed to contact EPA. The EE/CA for 105-D & H was sent to Ecology for review to keep the process moving until the issues can be resolved.

**105-B Reactor Safe Storage:** Discussion with the EPA on the Tri-Party Agreement Milestone M-93-05, "Issue B Reactor Phase II Feasibility Study Engineering Design Report for Public Comment" (6/30/00), indicate that the document would meet the milestone requirements but would not be issued for public comment. The EPA has requested that the feasibility study be expanded to include all building hazards (including expanded tour route) and an EE/CA be prepared and submitted for public comment. Currently, the project does not have a clear path forward relative to hazard identification and resolution. Funding has not been authorized for hazard reduction.



**Status:** Work with appropriate RL personnel to determine a path forward.

### EXTERNAL ISSUES (i.e. HAB, Congress, etc.): D&D

None identified at this time.

### DOE-RL & HQ ISSUES/REQUESTS (not covered elsewhere): D&D

**224B:** EPA has declined to participate in FY 2000 assessment activities because they do not support FY 2001-2003 DWP funding that would lead to near term 224B decommissioning.



**Status:** Lack of EPA comment on the EE/CA will prevent completion. Lack of EPA participation in walkdowns of the facility and the DQO process will prevent development of the Sample and Analysis Plan.

### **INTEGRATION ACTIVITIES: D&D**

None identified at this time.

## Program Management and Support (PM&S)

**MAY 2000** 

### **SECTION B - RESTORING THE RIVER CORRIDOR**

Financial / Performance measures data as of month-end March.
All other data as of April 20, unless otherwise noted.

### Program Management & Support (PM&S):

**ACCOMPLISHMENTS: PM&S** 

Compliance, Quality, Safet y & Health

**Safety & Health:** The FY 2000 2<sup>nd</sup> Quarter Security Self-Assessment Report was issued. This assessment focused on the ERC physical security and badging programs. Two areas of improvement were noted. These are being addressed by BHI Security and the functional organizations.

The new SH-01, ERC Safety and Health Program manual was issued on March 2.

Activities related to implementation of the revised 10CFR835 activities included:

- Received comments from the projects, the functions, and selected craft workers (RCTs) on the draft Radiological Program Protection Manual (RPPM).
- Developed the following procedures for new Radiological Control manual: Radiation Safety Training, & Radiological Training for Line Management
- Completed Technical Review of RadWorker training module for plutonium/uranium hazards

Compliance and Quality Programs/Price Anderson Amendment Act (PAAA): The annual 200 West Area inspection was conducted by site contractors and the Washington State Department of Ecology on March 21. The inspection is a requirement of the sitewide Resource Conservation and Recovery Act (RCRA) permit. No concerns or violations were noted as a result of the inspection.

An independent assessment of the corrective action plan submitted to the Environmental Protection Agency (EPA) and Ecology in response to the Notice of Violations (NOVs) concerning management of IDW (tri-butyl phosphate) is ongoing. BHI management has directed Compliance and Quality Programs (CQP) to conduct an independent assessment to verify that commitments made in the response letter have been addressed and implemented, and is effective. Fieldwork will be completed by the end of March, with a proposed final report issued on April 10.

**External Affairs:** Provided support to DOE's FY 2002 Budget Workshop held on March 15 in Richland. Finalized and forwarded to DOE's Public Involvement Manager the questions and comments from the ER and Waste Management breakout sessions at the Workshop, which will be incorporated into all the comments received at the various meetings for development of a response to comment.

**Project Procurement and Property Management:** Procurement/Property management personnel attended an overview of a new property system put on by PNNL. Data fields are currently being mapped into this system, which will be on line in June, when all of the other Hanford site contractors complete their system input. Per DOE direction, BHI will wait until FHI completes their package and purchase a single site license thus saving about \$40K over purchasing three licenses. Additional Business Process Improvement meetings were conducted March 28 through 30.

**Design Engineering:** Initiated activities to coordinate the use of System Level Automation Tools for Engineers (SLATE) with the PHMC. The PHMC is following the BHI lead of implementing SLATE for requirements management. BHI is working with the PHMC to standardize database schema and share specialty processes that enhance our ability to share information.

**Technology Application:** Submitted F Reactor Fuel Storage Basin Cleanout proposal in response to the Accelerated Site Technology Deployment (ASTD) Program FY 2000 call for proposals.

**Environmental Technologies:** The Environmental Radiological Measurements Plan was issued. The plan describes the process and requirements for planning, performing, and evaluating environmental radiological measurements used for restoration and remediation decisions.

Completed the Decisional Draft "Guidance for Radiological Release of DOE Nonreal Property at Hanford" (BHI-01338). The draft defines the process that will be used for the release of nonreal property (e.g., tools, equipment, steel, concrete rubble) from radiological controls at the Hanford Site.

Green

**MAY 2000** 

### **ACCOMPLISHMENTS: PM&S**

Completed four targets for the Waste Minimization performance incentive: (1) re-deployment of concrete crusher to Ohio, (2) recycled un-needed absorbents to another ERC project, (3) recycled flat bed trailer and generator, and (4) recycled 1,100 drum overpacks.

**Planning & Controls:** Rev. 1 Rates – Received DOE-RL approval of Fiscal Year 2000 Revision 1 Provisional Billing Rates.

DWP Rate Development – Started development of rates for the Fiscal Years 2001 through 2003 Detailed Work Plan.

Green

### **SAFETY/ISMS/CONDUCT OF OPS: PM&S**

See Cross-Cutting Package.

### **BREAKTHROUGHS/OPPORTUNITIES FOR IMPROVEMENT: PM&S**

None identified at this time.

### LONG-TERM (6 MONTHS PLUS) IMPORTANT ITEMS: PM&S

Planning & Controls: Mid-Year Review – May 8-9

Detail work planning process for FY 2001 - FY 2003 - Kick-off meeting - June 1

Green

### MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS): PM&S

DOE Secretarial:

None identified at this time.

### • DOE EM Performance Agreement:

None identified at this time.

### • TPA Milestones:

None identified at this time.

### • DNFSB Commitment:

None identified at this time.

### **PERFORMANCE OBJECTIVES: PM&S**

None identified at this time.

### **PERFORMANCE MEASURES: PM&S**

None planned in FY 2000.

### STRETCH AND SUPERSTRETCH GOALS: PM&S

None identified at this time.

**MAY 2000** 

### PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE): PM&S

### Schedule:

Drogram Managament & Support	BCWS	BCWP	Variance
Program Management & Support	\$K	\$K	\$K
ER10 ERC Program Management & Support	9,568	9,511	-57
ER10 RL Program Management & Support	3,736	2,264	-1,472
TOTAL PM&S	13,304	11,775	-1,529



PBS-ER-10 - ERC Program Management and Support

Schedule Variance = [(-\$1529K); (-11.5%)] [Last Month: (-\$1027K); (-10.0%)]

Cause: Late billing on site-wide assessments.

**Resolution:** RL is discussing billing/timing with other site contractors.

### • Cost:

Drogram Management & Support	BCWP	ACWP	Variance
Program Management & Support	\$K	\$K	\$K
ER10 ERC Program Management & Support	9,511	9,478	33
ER10 RL Program Management & Support	2,264	2,264	0
TOTAL PM&S	11,775	11,742	33



PBS-ER-10 - ERC Program Management and Support

Cost Variance = [+\$33K; +0.3%] [Last Month: +\$44K, +0.5%]

On Budget.

**REGULATORY ISSUES: PM&S** 

None identified at this time.

EXTERNAL ISSUES (i.e. HAB, Congress, etc.): PM&S

None identified at this time.

DOE-RL & HQ ISSUES/REQUESTS (not covered elsewhere): PM&S

None identified at this time.

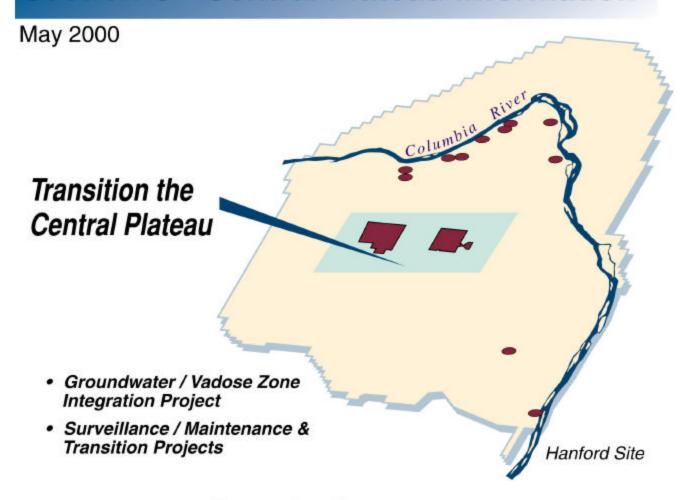
**INTEGRATION ACTIVITIES: PM&S** 

None identified at this time.

### Richland Operations Office Environmental Restoration

## Environmental Management Performance Report

Section C - Central Plateau Information



Focused on Progress...
Focused on Outcomes!





## Groundwater / Vadose Zone Integration (GW/VZ)

### SECTION C - TRANSITIONING THE CENTRAL PLATEAU

Financial / Performance Measures data as of month-end March.
All other data as of April 20, unless otherwise noted.

### Groundwater/Vadose Zone Integration (GW/VZ):

**ACCOMPLISHMENTS:** GW/VZ

**General Project:** Conducted contractor Project Retreat with team members to identify integration areas, scope summary, assumptions and key deliverables between four work groups: Modeling and Assessment, Characterization/Monitoring, Remediation, and Data Interpretation/Conceptual Modeling in preparation for the upcoming FY 2001-FY 2003 DWP process.

**200 Area Assessment:** Worked with Science and Technology (S&T) to coordinate 200 Area field characterization work with sampling needs for S&T actinide mobility investigations.

**Long-Term Monitoring:** Distributed data reports and developed a process and a map to show recent analysis results posted on the FY 1999 plume map. These address corrective actions resulting from the tritium off normal occurrence report.

**Tritium Investigation:** Received over 95% of the data from the Phase I sampling event from the laboratory.

Conducted a Data Quality Objective (DQO) status meeting with members of the technical team in support of developing and issuing the DQO Summary Report. This report will be the basis of the scope for Phase II Tritium Investigation.

Completed and provided to DOE-RL a letter to address Ecology's request for re-evaluation of historical Tritium data near the 618-11 Burial Grounds.

**Pump and Treat Systems:** All groundwater pump and treat systems have operated above planned availability levels through March.

**ISRM Drilling/Injection:** Completed FY 2000 ISRM well installations. Sixteen wells have been drilled and completed total depth. Project on schedule.

**Science & Technology:** Submitted the S&T Roadmap for Project review and comment. The revision of the roadmap includes the risk technical element and provides the basis for FY 2001 work scope.

Completed coordination plans between Representative Sites and RPP Vadose Zone on the SX-108 slant bore hold. This work will provide S&T input to the RPPs-SX Field Investigation Report.

**System Assessment Capability:** Completed Peer Review of SAC Rev. 0 Design Document and Detailed Software Design Document.

**Characterization of Systems:** Received technical staff comments on the Conceptual Model Approach paper and commenced document revision.

**Public Involvement:** Met with DOE-RL and DOE-HQ to develop a scope and schedule for the May 2000 Semi-Annual Report to Congress.

Drafted a response letter for DOE-RL concerning Governor Locke's inquiring about the Tritium Investigation.

### SAFETY/ISMS/CONDUCT OF OPS: GW/VZ

See Cross-Cutting Package.

### BREAKTHROUGHS/OPPORTUNITIES FOR IMPROVEMENT: GW/VZ

None identified at this time.

Green

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### LONG-TERM (6 MONTHS PLUS) IMPORTANT ITEMS continued: GW/VZ

### Key ISRM FY2000 Activities:

FY 2001 Activities: (Planned Activities)

Activities: Drill and install 24 ISRM Barrier Wells. Utilize all wells for ISRM Barrier emplacement. [Approximately 240 meters of additional ISRM Barrier length to be constructed in FY 2001.]

Drill and install 4 ISRM compliance wells.

FY 2002 Activities: (Planned Activities)

Activities: Drill and install 24 ISRM Barrier Wells. Utilize all remaining wells for ISRM Barrier

emplacement.

[Approximately 240 meters of additional ISRM Barrier length to be constructed in FY 2002.]

Demobilize evaporation pond (FY 2002 or FY 2003 Activity).

#### **MAJOR COMMITMENTS:** GW/VZ

#### DOE Secretarial:

None identified at this time.

### • FY 2000 Management Commitment Milestones:

Transmit Update of the Vadose Zone Science and Technology Roadmap (PBS VZ01) due April 30.

Status: Draft was provided to DOE on April 14.

Complete Installation of the Wells and Initiate Injection of the Barrier for Phase II of the In Situ REDOX Manipulation Project (PBS ER08) due September 30.

Status: Forecasted to be complete by September 30. (Well installation completed on April 24.)

Complete the Semi-Annual Groundwater/Vadose Zone Report (December 1999 – March 2000) due May 31.

Status: Forecasted to be completed by May 31.

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### (5) MAJOR COMMITMENTS continued: GW/VZ

### • TPA Milestones:

Milestone	Description	Due Date	(F)/(A) Date
M-13-22	Submit U-Pond/Z-Ditches Cooling Water Group Work Plan	12/31/99	12/14/99 (A)
M-24-00K	Install RCRA Groundwater Monitoring Wells at the Rate of up to 50 in Calendar Year if Required	2/29/00	2/17/00 (A)
M-24-41	Install Three (3) Additional RCRA Wells for the SST WMA S-SX	2/29/00	2/17/00 (A)
M-24-42	Install One Replacement Well for the 216-S-10 Pond	2/29/00	2/17/00 (A)
M-24-43	Install One (1) Additional RCRA Well for the SST WMA TX-TY	2/29/00	2/17/00 (A)
M-24-44	Install One Replacement Well for the 216-B-3 Pond *This is an extension of a CERCLA vadose borehole.	2/29/00	2/17/00 (A)
M-24-45	Install Two (2) Additional RCRA Wells for the SST WMA B-BX-BY	2/29/00	2/17/00 (A)
M-13-23	Submit 200-TW-1 Work Plan	8/31/00	8/31/00 (F)
M-13-24	Submit 200-TW-2 Work Plan	8/31/00	8/31/00 (F)
M-13-00K	Submit (1) 200 NPL RI/FS (RFI/CMS) Work Plan	12/31/00	12/31/00 (F)
M-13-25	Submit Uranium Rich Process Waste Group (200-PW-2) Work Plan	12/31/00	12/31/00 (F)
M-24-00L	Install RCRA Groundwater Monitoring Wells at the Rate of up to 50 in Calendar Year 2000 if Required	12/31/00	12/31/00 (F)

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### • DNFSB Commitment:

None identified at this time.

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**PERFORMANCE OBJECTIVES:** *GW/VZ – (River and Plateau)* 

Outcome	Performance Indicator	Status
Restore the River Corridor for Multiple Uses	Manage groundwater plumes per interim RODs.	Baseline work is projected to be completed per PI requirements, BCP-20065 was submitted and approved to extend the ISRM drilling schedule as a result of late signing of the 100-HR-3 ROD.
	Complete system assessment capability.	Baseline work projected to be completed per PI requirements
Transition Central Plateau to Support Long-Term Waste	Soil sites assessments.	Baseline work projected to be completed per PI requirements.
Management	Manage groundwater plumes per interim RODs	All measures projected to meet PI requirements; all baseline work projected to be completed per PI requirements.

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PERFORMANCE MEASURES: GW/VZ

None planned in FY00.

### STRETCH AND SUPERSTRETCH GOALS: GW/VZ

FY00 "Stretch" Goals	Scope Dollars (K)	Approved BCPs (K)
Groundwater Management – Resin Purchase:		
(1) Resin Purchase (BCP-20115)	\$406.6K	\$406.6K
Complete Partitioning of Interwell Treatment at 200-ZP-1 and 200-ZP-2	\$299.4K	\$0.0K
S/Total GW – Vadose Zone Stretch Goals:	\$706.0K	\$406.6K

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**MAY 2000** 

### STRETCH AND SUPERSTRETCH GOALS continued: GW/VZ

FY00 "Superstretch" Goals	Scope Dollars (K)	Approved BCPs (K)
Provide Permanent Solution for Hanford Groundwater Plumes	\$750.0K	\$0.0K
Complete Remediation of 60 Sq. Mi. of Hanford Site:		
(1) Verify and administratively close 170 wells (2) Decommissioning of 200 wells	\$450.0K \$900.0K	\$0.0K \$0.0K
S/Total GW – Vadose Zone Super Stretch Goals:	\$2,100.0K	\$0.0K

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Status: Plan and estimate developed, current work efforts focusing on stretch activities at this time.

### PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE): GW/VZ

#### Schedule:

Croundwater Vadosa Zona Integration	BCWS	BCWP	Variance	
Groundwater Vadose Zone Integration	\$K	\$K	\$K	
ER02 200 Area Remedial Actions	2,823	2,643	-180	
ER08 Groundwater Management	12,035	10,281	-1,754	
VZ01 Groundwater/Vadose Zone	5,404	4,470	-934	
TOTAL Groundwater	20,262	17,394	-2,868	



### PBS-ER-02 - 200 Area Remedial Action (Assessment)

Schedule Variance = [(-\$180K); (-6.4%)] [Last Month: -\$111K; -3.8%]

Cause: Miscellaneous assessment work rescheduled.

**Resolution:** None required.

### PBS-ER-08 - Groundwater Management

Schedule Variance = [(-\$1754K); (-14.6%)] [Last Month: (-\$2024K); (-19.9%)]

**Cause:** Groundwater Monitoring sample collection and analysis (PNNL) fell behind schedule in October/November, due to difficulties in obtaining NCO bargaining unit personnel, and has not yet recovered.

**Resolution:** Additional NCOs have been added and a recovery schedule implemented; unexpected sampling at the 618-11 Burial Ground will impact recovery timing; full recovery is not expected before summer.

**Cause:** Waste shipments and regeneration at Pump and Treat units have been delayed due to waste disposition issue; no significant impact.

Resolution: Waste regeneration shipments have been scheduled through Fluor Hanford.

Cause: Delays in shipment of waste to ERDF.

**Resolution:** Will recover when waste issues resolved and shipped.

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**MAY 2000** 

### (7) PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE) continued: GW/VZ

Cause: Resin purchase and resin regeneration delayed due to waste issues.

**Resolution:** Resin has been purchased so schedule variance will correct itself. Regeneration issues resolved.

Cause: Waste collection and offsite waste analysis slower than anticipated.

**Resolution:** Labor end contract issues have been resolved, recovery progressing but uncertain if full recovery can be achieved.

### PBS-VZ-01 - Groundwater/Vadose Zone

Schedule Variance = [(-\$934K); (-17.3%)] [Last Month: (-\$811K); (-18%)]

**Cause:** Peer review subpanel meeting was rescheduled; National Academy of Science meeting was rescheduled.

Resolution: Expect full recovery.

Cause: Resource availability has delayed system characterization efforts.

**Resolution:** Additional staffing was added March 28; expect full recovery.

**Cause:** Resource availability delayed science and technology efforts on Roadmap planning and transport modeling.

**Resolution:** Subcontract staff has been added to supplement existing staff; expect late completion of Roadmap but well within FY 2000; expect recovery of transport modeling by September.

#### Cost:

Croundwater Vadasa Zana Integration	BCWP	ACWP	Variance
Groundwater Vadose Zone Integration	\$K	\$K	\$K
ER02 200 Area Remedial Actions	2,643	1,942	701
ER08 Groundwater Management	10,281	9,835	446
VZ01 Groundwater/Vadose Zone	4,470	4,269	201
TOTAL Groundwater	17,394	16,046	1,348



### PBS-ER-02 – 200 Area Remedial Action (Assessment)

Cost Variance = [+\$701K; +26.5%] [Last Month: +\$964K; +34.6%]

**Cause**: Efficiencies learned in prior work were applied to Gable Mountain and B-Pond test pit trenching, resulting in savings; number of samples required was reduced. Borehole drilling was combined with RCRA drilling resulting in cost savings.

Resolution: Savings will be used to perform other remediation work.

### PBS-ER-08 – Groundwater Management

Cost Variance = [+\$446K; +4.3%] [Last Month: +\$259K; +3.2%]

**Cause:** Fewer support personnel were required than planned to support data evaluation, GIS support, and statistical analysis.

**Resolution:** Savings will be used to perform other remediation work.

### PBS-VZ-01 - Groundwater/Vadose Zone

Cost Variance = [+\$201K; +4.5%] [Last Month: +\$150K; +4.1%]

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### PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE) continued: GW/VZ

Cause: Costs of system assessment capability development less than planned.

**Resolution:** Savings will be used to perform other remediation work.

### **REGULATORY ISSUES:** GW/VZ

200-ZP-2: Regulatory agencies desire continued operation of the 200-ZP-2 vapor extraction unit (not included in DWP).

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Status: Project personnel met with EPA (Doug Sherwood), to discuss the need to restart ZP-2 pending completion of the cost estimate to perform the Portitioning Interwell Tracer Test (PITT) test. Decision to be made to either restart ZP-2 or initiate the PITT test by June 1. PITT test estimate is complete and BHI internal management review is in process. Forecasted date to send to DOE is May 8. A BCP for ZP-2 restart has also been completed.

200-UP-1: Regulatory agencies desire continued operation of the 200-UP-1 pump and treat system (not included in DWP).



Status: BHI received direction from the Contracting Officer Representative (COR) to extend operations until the end of FY 2000. The Groundwater Project will also include operations of UP-1 per FY 2001-FY 2003 DWP. BCP-20163 has been approved to extend operations to the end of

Well Installation: RL provide funds for CY-2000 GW RCRA Well installation.



Status: On April 19, agreement was reached with Ecology to install fifteen RCRA groundwater monitoring wells for calendar year 2000 (TPA Milestone M-24-00L). Specific well locations need to be identified. Also, Ecology agreed milestone could be extended beyond December 31, if required.

200 Area Assessment: RL direction is needed on proceeding with the 200-PW-2 Work Plan. Initiating work on the 200-PW-2 OU is not consistent with funding levels nor RL's path forward strategy for the 200



Status: The 200-PW-2 Work Plan is currently on hold pending deferral of 200-PW-2 activities, and will require a TPA change. TPA Milestone M-13-25 requires that the draft A 200-PW-2 work plan be submitted to the regulators by December 31. Meeting this milestone requires that work plan/DQO activities be initiated on May 1. Briefing with DOE management took place on April 21.

618-11 Burial Ground Tritium: A high tritium value was identified in a monitoring well for the 618-11 Burial Ground.



Status: A DQO summary report for the Phase II plume investigation near Burial Ground 618-11 is currently being revised. A brief plan of key characterization activities was summarized from this report to aid in review in document review. The Phase I report on the February sampling event is under review.

### EXTERNAL ISSUES (i.e. HAB, Congress, etc.): GW/VZ

None identified at this time.

Area.

### DOE-RL & HQ ISSUES/REQUESTS (not covered elsewhere): GW/VZ

None identified at this time.

### **INTEGRATION ACTIVITIES:** GW/VZ

None identified at this time.

# Surveillance/Maintenance and Transition Project (SM&T)

### SECTION C - TRANSITIONING THE CENTRAL PLATEAU

Financial / Performance measures data as of month-end March.
All other data as of April 20, unless otherwise noted.

### **Surveillance/Maintenance & Transition Project (SM&T):**

#### **ACCOMPLISHMENTS:** SM&T

Completed mobilization of equipment and began the sealing of the passive vents at RARA sites work (7 of 84 identified have been sealed).

Removal of legacy waste is approximately 90% complete at KE Reactor.

At 105-KW, about 52 of 68 boxes have been opened and approximately 280 of 370 fuel baskets have been packaged and are ready to be shipped to ERDF. Removal of all waste is approximately 45% complete.

WDOH approved the final design package for the new water treatment plant. The subcontractor continues to install the new piping system. Phase I deactivation of the existing water plant continues (Stretch Goal).

Completed the task instruction for the Pu Loadout Hood work and began developing the Readiness Assessment (RA) plan.

Continue to move equipment off the cell cover blocks, lifting the cellblocks, videoing the contents and utilizing the gamma camera to take radiological profiles of the cells in support of CDI FS. Completed development of the task instructions and work packages for the railroad tunnel door repair and railroad tunnel concrete sampling activities.

Completed the RARA Annual Report and the ERC Spring Re-vegetation activities.

Continue to develop the task instruction and work package for 183 KE/KW Acid Tanks stabilization work.

Began the REDOX railroad cut interim stabilization and commenced backfilling. Began to backfill/downpost all of the outdoor contaminated areas around REDOX.

### SAFETY/ISMS/CONDUCT OF OPS: SM&T

See Cross-Cutting Package.

### **BREAKTHROUGHS/OPORTUNITIES FOR IMPROVEMENT:** SM&T

None identified at this time.

### LONG-TERM (6 MONTHS PLUS) IMPORTANT ITEMS: SM&T

None identified at this time.

### **MAJOR COMMITMENTS: SM&T**

### • DOE Secretarial:

None identified at this time.

### • DOE EM Performance Agreement:

None identified at this time.

#### TPA Milestones:

None identified at this time.

### DNFSB Commitment:

None identified at this time.

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**PERFORMANCE OBJECTIVES:** SM&T

Outcome	Performance Indicator	Status	
Restore the River Corridor for Multiple Uses	Deactivation and preparation for decommission.	KE/KW legacy waste removal recovery behind schedule condition due to additional regulatory requirements and resource allocation (RCT's/manual). BCP-20075 approved to extend schedule by three weeks. Baseline work is projected to be completed per PI requirements.	Green
Transition Central Plateau to Support Long-Term Waste Management	Perform S&M/risk reduction on inactive facilities to eliminate/stabilize environmental, human health hazards until D&D Perform CDI activities.	CDI baseline work projected to be completed per PI requirements. DOE-Waste Management funding shortfalls will require scope adjustment.	

**PERFORMANCE MEASURES:** SM&T

None planned in FY00.

### **STRETCH AND SUPERSTRETCH GOALS:** SM&T

FY00 "Stretch" Goals	Scope Dollars (K)	Approved BCPs (K)
Deactivate 183-N Water Treatment Plant (Phase I) BCP-20111) Deactivate 183-N Water Treatment Plant (Phase II) (BCP-20175)	\$131.0K \$158.8K	\$131.0K \$158.8K
Asbestos Abatement & Repairs (100, 200, & 300 Areas)	\$494.0K	\$0.0K
Complete the CDI Technical Work to Support the Phase II Feasibility Study	\$625.0K	\$0.0K
S/Total SM&T – Facility Transition Stretch Goals:	\$1408.8K	\$289.8K

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**MAY 2000** 

### PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE): SM&T

### Schedule:

Surveillance /Maintenance & Transition Project	BCWS	BCWP	Variance
Surveillance/Maintenance & Transition Project	\$K	\$K	\$K
ER05 Surveillance & Maintenance	6,410	5,904	-506
ER07 Long-Term Surveillance & Maintenance	4	6	2
TOTAL SM&T	6,414	5,910	-504



### PBS-ER-05 - Surveillance and Maintenance

Schedule Variance = [(-\$506K); (-7.9%)] [Last Month: (-\$498K); (-9.5%)]

**Cause:** Preparation and submittal of an unplanned Waste Management Plan to Regulators for 105-KE legacy waste removal delayed start of field activities.

**Resolution:** The Waste Management Plan has been completed, and field activities commenced in late December; additional craft resources were added to help recover schedule.

Cause: CDI process cell access work delayed due to canyon crane being down for repairs.

**Resolution:** Crane NDE completed – recommendations implemented; schedule expected to be recovered.

Cause: 195-S sump work behind schedule because access could not be achieved as originally planned.

**Resolution:** Work package is complete. WDOH agreed that NOC (air permit) is not required. BCP being written for change in scope.

PBS-ER-07 – Long-Term Surveillance and Maintenance (BCWS \$47K for FY 2000) Schedule Variance = N/A

### Cost:

Surveillance /Maintenance & Transition Project	BCWP	ACWP	Variance
Surveillance/Maintenance & Transition Project	\$K	\$K	\$K
ER05 Surveillance & Maintenance	5,904	6,266	-362
ER07 Long-Term Surveillance & Maintenance	6	10	-4
TOTAL SM&T	5,910	6,276	-366



### PBS-ER-05 - Surveillance and Maintenance

Cost Variance = [(-\$362K); (-6.1%)] [Last Month: (-\$161); (-3.4%)]

**Cause:** Canyon crane NDE testing and repair not anticipated; PUREX shotcreting and roof inspections were unanticipated work.

**Resolution:** BCP approved for NDE testing; roof repair work trended.

**Cause:** 200 Area miscellaneous waste management and increased disposal costs for PHMC recharacterization.

**Resolution:** Project monitoring costs. Trends recorded.

Cause: Underruns on B Plant S&M and RARA stabilization from work practice efficiencies.

**MAY 2000** 

### PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE) continued: SM&T

**Resolution:** Underrun will be utilized for other ER work.

PBS-ER-07 - Long-Term Surveillance and Maintenance (BCWS \$47K for FY 2000)

Cost Variance = N/A

**REGULATORY ISSUES: SM&T** 

None identified at this time.

EXTERNAL ISSUES (i.e. HAB, Congress, etc.): SM&T

None identified at this time.

### DOE-RL & HQ ISSUES/REQUESTS (not covered elsewhere): SM&T

**B-Plant/Purex Roof Funding:** Ensure funding is provided by Transition Projects per MOUs, to support roof repair commitments for B-Plant and Purex. Facilities have transitioned to ER with the commitment to fund these repairs from the releasing Project.



**Status:** Funding for roof repairs has **not** been included within the current above -the-line Integrated Priority Lists (IPL) targets.

**Stack Ventilation:** Problems with stack ventilation, retired filters, and other issues documented in letter, M. C. Hughes to R. Gerton, 9/28/99, "Remaining Issues for the Transition of the B-Plant Facility from DOE-Transition to ER".



**Status:** Facility transferred to ERC September 30, 1999. MOA with open items assigned cost/schedule responsibility received September 30. Original MOA schedule not met. The ventilation specialists brought in by Fluor Hanford has determined the resonant frequency of the ductwork matches the low flow harmonics of the fan, thus setting up severe vibrations in the ductwork. Solution is not to operate the fan in low flow conditions utilizing the input damper for modulation. Engineering report and path forward to repair the ductwork is pending; fieldwork implementation to follow.

INTEGRATION	ACTIVITIES:	SMRT

None identified at this time.